

REMARKS

The Examiner has objected to claims 1 and 7, stating that a promoter cannot “confer or activate or enhance expression” of a nucleic acid, but rather “confers or enhances the ability of operably linked sequence to be expressed upon induction.” Applicants have amended claims 1 and 7 to recite a promoter that confers or enhances the ability of operably linked sequence to be expressed as suggested by the Examiner.

In addition, the Examiner has objected to claim 1, stating that the language “comprising any one of” should be revised to “wherein the promoter comprises any one of.” The Examiner has also objected to claim 15, stating that the language “comprising any one of” should be revised to “wherein the at least one portion comprises any one of.” Applicants have amended claims 1 and 15 in accordance with the Examiner’s suggestions. Accordingly, applicants respectfully request the Examiner to withdraw the pending objections.

Claims 22-24 stand rejected under 35 USC 112, second paragraph, as being indefinite. In particular, the Examiner states that it is unclear whether the isolated nucleic acid recited in claims 22-24 defines “a promoter to the native promoter direct expression of SEQ ID NO:1 or SEQ ID NO:2 or a promoter hybridized that binds SEQ ID NO:1.” Applicants have amended claims 22-24 to recite an “ACC synthase that comprises an amino acid sequence” encoded by a nucleotide sequence as set forth in SEQ ID NO: 1, hybridizes under stringency conditions and washing to a nucleotide sequence as set forth in SEQ ID NO:1, or has the sequence as set forth in SEQ ID NO:2, respectively. Since the claim language is clear and not ambiguous, this rejection should be withdrawn.

Claims 1, 7, 9, 11-15 and 19-24 stand rejected under 35 USC 112, first paragraph, for lack of enablement. In particular, the Examiner questions whether the scope of the claim bears a reasonable correlation to the scope of enablement—stating that the Examiner is not certain whether an isolated promoter of at least 90% identity to SEQ ID NO:3 or its functional fragments would produce the

claimed results. Applicants have amended claims 1, 7 and 15 to recite a sequence having at least 95% identity to the fragment comprising residues of 2016 to 2384 of SEQ ID NO:3, rather than 90% as previously claimed. In addition, claims 1, 7 and 15 no longer recite a sequence that hybridizes to such a fragment under high stringency conditions and washing or recite a functional fragment of SEQ ID NO:3. Thus, these claims now recite a promoter that comprises a fragment with “95% identity” to residues 2016 to 2384 of SEQ ID NO:3, wherein, in its native form, the promoter directs expression of a gene encoding ACC synthase and is inducible in response to physical stimulation.

A nucleic acid sequence having at least 95% identity to the sequence recited in (i) and (ii) has a close relationship to the recited and disclosed sequence. As applicants noted in the response dated December 6, 2006, it is well known to those skilled in the art that promoter fragments are very flexible, and that point mutations do not normally alter the expression intensity or pattern of expression of promoters. In addition, those skilled in the art routinely identify functional variants to a given nucleic acid sequence by deleting or altering the nucleic acid sequence and measuring the functional activity of the resulting nucleic acid sequence. Such activities do not involve undue experimentation. An at least 95% identity is more than sufficient to ensure a close connection to the disclosed sequence. Further, the claim language is already limited to a promoter that directs expression of ACC synthase and is inducible in response to physical stimulation in its native form—for example, in the indigenous cell. Since the claimed sequences bear a close relationship to the disclosed sequence, the specification would have enabled those skilled in the art to make and use the claimed invention without undue experimentation. Accordingly, this rejection should be withdrawn.

Finally, claims 26-35 are new. Support for these claims can be found in Figure 12. The initial nucleotide number of the residues recited in new claims 26 and 31, for example, can be obtained by subtracting 611 from 2384 to obtain 1773 as shown in Figure 12. Similarly, the initial


nucleotide numbers of the residues recited in new claims 27-30 and 32-35 can be obtained by subtracting 783, 1027, 1195, or 1565 from 2384. These claims are allowable at least due to their respective dependencies on amended claim 1.

In view of the above, each of the claims in this application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. **229752001300**.

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